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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,897	12/20/2000	Warren Sande	71493-864/jpw	4926
7380	7590	12/17/2004	EXAMINER	
SMART & BIGGAR/FETHERSTONHAUGH & CO. P.O. BOX 2999, STATION D 900-55 METCALFE STREET OTTAWA, ON K1P5Y6 CANADA			WARE, CICELY Q	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/739,897	Applicant(s) SANDE ET AL.	
	Examiner Cicely Ware	Art Unit 2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,9-13 and 15 is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6-8 and 14 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see Pg. 2, filed October 04, 2004 with respect to the rejection(s) of claim(s) 1, 3-8 and 14 under 35 USC § 102 and 35 USC § 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 4 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Maestas et al. (US Patent 4,977,596).

(1) With regard to claim 1, Maestas et al. discloses Maestas et al. discloses a method of determining whether the bit disparity in a data stream is acceptable, comprising the steps of: sampling the data stream, detecting the number of samples of the data stream which have a predetermined one of two logical values within a time period, counting a number samples of the data stream, which are being considered within the time period, calculating the ratio of the number of samples detected which have the predetermined logical value to the number of samples considered, and

comparing the calculated ratio with a predetermined acceptable threshold range (col. 3, lines 50-52, 57, 60, col. 4, lines 17-21)

(2) With regard to claim 3, claim 3 inherits all the limitations of claim 1.

(3) With regard to claim 4, claim 4 inherits all the limitations of claim 3. Maestas et al. further discloses the detector identifies samples having a value of logical one (col. 3, line 58).

(4) With regard to claim 14, claim 14 inherits all the limitations of claim 1.

Furthermore Maestas et al. discloses a computer-readable medium for storing computer-executable instructions which, when executed by a processor in a bit disparity monitor corresponding to a data stream (col. 1, lines 23-26).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maestas et al. (US Patent 4,977,596) as applied to claim 3 above, in view of Henry (US Patent 4,309,694).

(1) With regard to claim 6, claim 6 inherits all the limitations of claim 3. However Maestas et al. does not disclose a transmitter for transmitting a data stream along a communication link, comprising the bit disparity monitor.

However Henry discloses in (Fig. 1) a transmitter for transmitting a data stream along a communication link, comprising the bit disparity monitor (103) (abstract).

Therefore it would have been obvious to one of ordinary skill in the art to modify Maestas et al. in view of Henry to incorporate a transmitter for transmitting a data stream along a communication link, comprising the bit disparity monitor in order to guarantee bit transitions for the extraction of timing information from the digital bit stream (Henry, col. 1, lines 16-18).

(2) With regard to claim 7, claim 7 inherits all the limitations of claim 3. Henry further discloses in (Fig. 1) a node for connection with a communications link along which the node may transmit a data stream (101), comprising the bit disparity monitor (103).

(3) With regard to claim 8, claim 8 inherits all the limitations of claim 3. Maestas et al. further discloses in (Fig. 2) a communications network comprising nodes interconnected by communications links along which data streams are transmitted and received, comprising the bit disparity monitor in order to detect and recover synchronization loss on encrypted data communication circuits (Maestas et al., col. 1, lines 51-53).

#### **Allowable Subject Matter**

6. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the

Art Unit: 2634

indication of allowable subject matter: The instant application discloses a method of determining whether the bit disparity in a data stream is acceptable. Prior art references show similar methods but fail to teach: **“the sub-sampler samples at a rate of 50MHz”**, as in claim 5.

7. Claims 2, 9-13 and 15 are allowed.

8. The following is a statement of reasons for the indication of allowable subject matter: The instant application discloses a method of determining whether the bit disparity in a data stream is acceptable. Prior art references show similar methods but fail to teach: **“simultaneously sampling a data stream and the inverted data stream”**, as in claims 2 and 15; **“a timer coupled to the 1’s counter and the samples counter for indicating the start and end of the time period”**, as in claim 9; **“second detector for identifying a number of samples of the inverted data stream which have a different predetermined logical value within the same time period; a correlator”**, as in claim 10; **“a first sub-sampler, a second sub-sampler”**, as in claim 13;

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cicely Ware whose telephone number is 571-272-3047. The examiner can normally be reached on Monday – Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone numbers

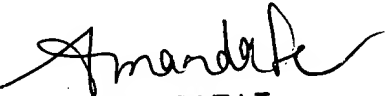
Art Unit: 2634

for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

*CicelyWare*

cqw  
December 9, 2004

  
AMANDA T. LE  
PRIMARY EXAMINER